

IN THE CLAIMS:

Please amend claims 8, 9, 11, 12, and 16 as follows. Please cancel claims 6, 7, 13, 14, and 21-24 without prejudice or disclaimer. Please add new claims 25 and 26 as follows.

1. (Previously Presented) A method comprising:

generating a residual signal from a multicarrier signal, the residual signal representing a difference between the multicarrier signal and a hard-clipped multicarrier signal;

applying a least squares function to the residual signal for at least one carrier of the multi-carrier signal, thereby generating a minimized residual signal for the at least one carrier; and

combining the minimized residual signals and the multicarrier signal.

2. (Previously Presented) A method according to claim 1 further comprising prior to the combining the minimized residual signals, filtering at least one minimized residual signal.

3. (Previously Presented) A method according to claim 1 further comprising delaying the multicarrier signal, wherein the delayed multicarrier signal is combined with the minimized residual signal.

4. (Previously Presented) A method according to claim 1, wherein the generating the residual signal includes clipping the multicarrier signal to a predetermined level to thereby generate the hard-clipped multicarrier signal.

5. (Previously Presented) A method according to claim 2, wherein the filtering comprises complex filtering.

6. (Cancelled).

7. (Cancelled).

8. (Currently Amended) An apparatus comprising:

a ~~generating unit~~generator configured to generate a residual signal from a multicarrier signal, the residual signal representing a difference between the multicarrier signal and a hard-clipped multicarrier signal;

an applying unit configured to apply a least squares function to the residual signal for at least one carrier of the multi-carrier signal, thereby generating a minimized residual signal for the at least one carrier; and

a combining unit configured to combine the minimized residual signals and the multicarrier signal.

9. (Currently Amended) Apparatus according to claim 8, further comprising a ~~filtering unit~~filter configured to filter each minimized residual signal prior to implementation of the combining.

10. (Previously Presented) Apparatus according to claim 9, further comprising a delaying unit configured to delay the multicarrier signal, wherein the delayed multicarrier signal is combined with the minimized residual signals.

11. (Currently Amended) Apparatus according to claim 9, wherein the ~~generating unit~~generator includes a ~~clipping unit~~clipper configured to clip the multicarrier signal to a predetermined level to thereby generate the hard-clipped multicarrier signal.

12. (Currently Amended) Apparatus according to claim 10, wherein the ~~filtering unit~~filter comprises a complex filter.

13. (Cancelled).

14. (Cancelled).

15. (Previously Presented) A system comprising:

a transmitter apparatus configured to reduce a peak-to-mean ratio of a multi-carrier signal;

a generating unit configured to generate a residual signal from a multicarrier signal, the residual signal representing a difference between the multicarrier signal and a hard-clipped multicarrier signal;

an applying unit configured to apply a least squares function to the residual signal for at least one carrier of the multi-carrier signal, thereby generating a minimized residual signal for the at least one carrier; and

a combining unit configured to combine the minimized residual signals and the multicarrier signal.

16. (Currently Amended) The system according to claim 15, wherein said generating unit, said applying unit and said combining unit are implemented in a Global System for Mobile communications (GSM) Enhanced Data rates for GSM Evolution (EDGE)~~GSM~~ EDGE mobile communication system.

17. (Previously Presented) An apparatus comprising:

generating means for generating a residual signal from a multicarrier signal, the residual signal representing a difference between the multicarrier signal and a hard-clipped multicarrier signal;

applying means for applying a least squares function to the residual signal for at least one carrier of the multi-carrier signal, thereby generating a minimized residual signal for the at least one carrier; and

combining means for combining the minimized residual signals and the multicarrier signal.

18. (Previously Presented) A system comprising:

transmitting means for reducing a peak-to-mean ratio of a multicarrier signal;

generating means for generating a residual signal from the multicarrier signal, the residual signal representing a difference between the multicarrier signal and a hard-clipped multicarrier signal;

applying means for applying a least squares function to the residual signal for at least one carrier of the multi-carrier signal, thereby generating a minimized residual signal for the at least one carrier; and

combining means for combining the minimized residual signals and the multicarrier signal.

19. (Previously Presented) The system according to claim 18, wherein said generating means, said applying means, and said combining means are implemented in a Global System for Mobile communications (GSM) Enhanced Data rates for GSM Evolution (EDGE) mobile communication system.

20. (Previously Presented) The apparatus according to claim 17, further comprising a filtering means for filtering each minimized residual signal prior to implementation of the combining.

21. (Cancelled).

22. (Cancelled).

23. (Cancelled).

24. (Cancelled).

25. (New) The method according to claim 5, wherein the complex filtering comprises applying at least one of a matrix function, a sampling function, a filter, and an interpolation function to the at least one minimized residual signal.

26. (New) The apparatus according to claim 12, wherein the complex filter comprises at least one of a matrix function, a sampling function, a filter, and an interpolation function.